



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

AUG 27 2015

REPLY TO THE ATTENTION OF:

E-19J

Cindy Bladey
Rules, Announcements, and Directives Branch
Office of Administration
Mail Stop 3 WFN-06-44M
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Re: Final Plant-Specific Supplement 54 to the Generic Environmental Impact Statement for the License Renewal of Byron Station, Units 1 and 2, Ogle County, Illinois - NUREG-1437 - CEQ #20150205

Dear Ms. Bladey:

The U.S. Environmental Protection Agency has reviewed the Final Supplemental Environmental Impact Statement (SEIS) for the above-mentioned project prepared by the Nuclear Regulatory Commission (NRC). Our comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementing Regulations (40 CFR 1500-1508), and Section 309 of the Clean Air Act.

Byron is a two-unit nuclear power plant located in Ogle County, Illinois. It began operation in February 1985 (Unit 1) and January 1987 (Unit 2). The site is located on approximately 1,782 acres, including the main site area and a right-of-way to the Rock River for the circulating water makeup intake and blowdown discharge pipelines. The nuclear reactor for each unit is a Westinghouse pressurized-water reactor producing 2,370 megawatts of electricity (MWe).

Byron is owned and operated by Exelon Generation Company, LLC (the applicant). The applicant applied to NRC for an extension to its operating license, extending operation for an additional 20-year period. Based on information provided by the applicant, NRC's preferred alternative is to grant the 20-year extension.

EPA provided comments on the Draft SEIS in a letter dated February 12, 2015, assigning a rating of Environmental Concerns – Adequate Information (EC-1). Our comments focused on clarifying impacts to aquatic resources, threatened and endangered species, and air quality. Based on our review of the Final SEIS, we note the following:

- EPA notes the discussion of our comments in Appendix A of the Final SEIS; we have nothing further on the following comments:

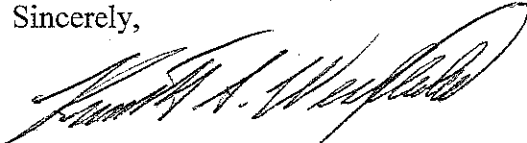
- **Comment 004-1¹:** This comment pertained to impacts on human health as a result of living near extremely-low frequency electromagnetic fields (ELF-ELM); EPA notes that NRC does not agree with our recommendation to analyze impacts from living near ELF-ELM as a site-specific issue.
- **Comment 004-2:** EPA recommended inclusion of language pertaining to the revised Clean Water Act 316(b) regulations, including potential modifications required by the facility to comply with the revisions. EPA notes the language provided in *Section 4.7.1.1* of the Final SEIS, with which we are satisfied.
- **Comment 004-3:** EPA recommended updates coordination between NRC and the U.S. Fish and Wildlife Service and the Illinois Department of Natural Resources. We appreciate the updated information regarding coordination status.
- **Comment 004-6:** This comment pertains to NRC's assignment of significance levels to impacts. In addition to the Byron Final SEIS, we have reviewed the Generic EIS and Table B-1 found at 10 CFR Part 51, Subpart A, Appendix B. EPA continues to find NRC's assignments of SMALL, MODERATE, and LARGE to be unclear, particularly when a range is assigned.
- **Comment 004-7:** EPA notes NRC's conclusion to not include the recommended citations (40 CFR 141, 40 CFR 142, and 40 CFR 190).
- **Comment 004-4:** According to the Final SEIS, Ogle County experiences severe weather events, such as floods, thunderstorm winds, and tornadoes. Based on these and other current climatic trends of greater extremes in weather (such as drought, temperature, and more frequent intense rainfall events), license operations could be impeded. This could include, but is not limited to: warmer water at intake sites, which may trigger requests for variances to National Pollutant Discharge Elimination System (NPDES) permits to allow discharge of warmer water, leading to thermal shock of aquatic species; or, reconfiguration of intake, discharge or other infrastructure based on water availability. We believe the Council on Environmental Quality's Draft Climate Change Guidance for Federal agencies' consideration of greenhouse gas emissions and climate change impacts in NEPA outlines a reasonable approach. The Draft Guidance includes climate change adaptation and resilience as important considerations for agencies contemplating actions with effects that will occur both at the time of implementation and into the future. Accordingly, EPA continues to recommend that NRC include a discussion in the NEPA analysis on how it will monitor any changes to the environment as a result of climate change that may affect the operation of the proposed alternatives and consider including appropriate adaptation measures that may be needed to make the infrastructure resilient to foreseeable climate change.
- **Comment 004-5:** EPA included several mitigation measures to further reduce environmental and human health impacts. We acknowledge that mitigation measures that are un-related to nuclear safety and security cannot be included in the NRC license. However, because we find these measures to be value-added, we continue to recommend them for consideration by the applicant. This includes, but is not limited, diesel emission reduction measures (such as anti-idling, equipment retro-fitting, and use of ultra-low sulfur diesel, etc.) and other ways to reduce greenhouse gas emissions (such as energy efficiency or renewable energy options).

¹ Comment numbers assigned by NRC in the Final SEIS.

EPA has no additional comments on the Final SEIS for license renewal at the Byron site. We commend NRC for taking a proactive approach to coordination after comments on the Draft SEIS were submitted; EPA appreciates ongoing communication between agencies to ensure issues are adequately addressed.

Thank you for the opportunity to comment on this document. If you have any questions or wish to discuss any aspect of this letter, please contact Elizabeth Poole of my staff at 312-353-2087 or poole.elizabeth@epa.gov.

Sincerely,



Kenneth A. Westlake, Chief
NEPA Implementation Section
Office of Enforcement and Compliance Assurance

cc: Lois James, U.S. Nuclear Regulatory Commission
Keith Shank, Illinois Department of Natural Resources
Kristen Lundh, U.S. Fish and Wildlife Service

